

#### ABSTRACT OF THE DISCLOSURE

In a method of treating viral infections and of tumors induced thereby a radioimmunoconjugate (RIC) containing an immunologically effective component and a radioactive component is provided. The immunologically effective component contains a) a receptor molecule or a fragment thereof having affinity to an epitope of the viral structural proteins expressed on the plasma membrane of infected cells, or b) a fragment of the cellular receptor molecule modified by mutagenesis, the fragment having affinity to an epitope of the viral structural proteins expressed on the plasma membrane of infected cells. The radioactive component is an alpha emitter or a beta emitter. The therapeutical agent is effective against viral infections such as HIV, HBV, HCV, HDV, HTLV, CMV, EBV, or HHV8 infections.